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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,286	11/30/2000	Wilson Tam	821937600001	3307

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EXAMINER

PHAN, MAN U

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/726,286

Applicant(s)

TAM ET AL.

Examiner

Man Phan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment and Argument

1. This communication is in response to applicant's 02/24/2005 Amendment in the application of Tam et al. for the "Unified distributed architecture for a multi-point video conference and interactive broadcast systems" filed 11/38/2000. Claims 1, 2, 6-9, have been amended. Claims 1-18 are pending in the present application.

2. Applicant's remarks and argument to the rejected claims are insufficient to distinguish the claimed invention from the cited prior arts or overcome the rejection of said claims under 35 U.S.C. 103 as discussed below. Applicant's argument with respect to the pending claims have been fully considered, but they are not persuasive for at least the following reasons.

3. In response to applicant's argument that the combination of cited references fails to present a prima facie case of obviousness. In response, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). It is not necessary that a "prima facie" case of unpatentability exist as to the claim in order for "a substantial new question of patentability" to be present as to the claim. Thus, "a substantial new question of patentability" as to a patent claim could be present even if the examiner would not necessarily reject the claim as either fully anticipated by, or obvious in view of, the prior art patents or printed publications. As to the importance of the difference between "a

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substantial new question of patentability” and a “prima facie” case of unpatentability see generally *In re Etter*, 756 F.2d 852, 857 n.5, 225 USPQ 1, 4 n.5 (Fed. Cir. 1985). Also, See MPEP § 2141.01(a) for a discussion of analogous and nonanalogous art in the context of establishing a prima facie case of obviousness under 35 U.S.C. 103. See MPEP § 2131.05 for a discussion of analogous and nonanalogous art in the context of 35 U.S.C. 102. 904.02. The Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). It must be recognized that any judgement on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant’s disclosure, such a reconstruction is proper. *In re McLaughlin*, 443, F.2d 1392; 170 USPQ 209 (CCPA 1971).

In response to Applicant’s argument that the references fail to show certain features described in length on page 8 of Applicant’s invention. However, It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Although the claims are interpreted in light of the specification. Limitations from the specification are not read into the claims. *In re Van Guens*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's argument with respect to the rejected claims 1 and 6 that the cited references do not disclose "*a plurality of geographically-dispersed reflectors*". However, reflector server or Mirror sites are used to make access faster when the original site may be geographically distant to its end users or when the original site may not have a high-speed connection to the Internet. For example, if a popular Web site is located in New York, mirror sites might be located in Los Angeles, London, and Tokyo. Accordingly, if a European user is having difficulty accessing the original New York site, he can hotlink to the mirror site (reflector server) that is geographically closest, i.e. London (See Kenner; Fig. 1 and Col. 4, lines 33 plus and Col. 5, lines 65 plus). Applicant asserted that the cited references describe a single reflector 180 or a single MMS 102. Moreover, although the reflector 180 or MMS 102 is depicted in the figure as a single unit, it should be appreciated that such a depiction is for illustrative purposes only. An actual implementation may consist of many reflectors or servers either co-located or geographically dispersed such as by distributing the functions, using mirror sites, and so on.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 6-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biggs et al. (US#5,625,407) in view of Goldszmidt et al. (US#6,195,680).

With respect to claims 1 and 2, both Biggs et al. (US#5,625,407) and Bhola et al. (US#6,321,252) disclose a novel method and system for multipoint video conference controlling, according to the essential features of the claims. Biggs discloses in Fig. 1 a block diagram illustrated the system architecture of a multimedia conferencing system which includes a multimedia server (MMS) 102, a plurality of endpoint devices 104, 106(*participants*), and a communications network 108. Multimedia server (MMS) 102 provides for the communication of multimedia information among a plurality of endpoint devices 104, 106. The MMS 102 is connected to a plurality of endpoint devices 104, 106 via network 108 over communications link 122. The MMS 102 includes an MMS processor 126 connected to an MMS memory 128. MMS processor 126 controls the operation of an MMS data transceiver 130, an MMS communications link establishment device 132, and a multimedia signal routing device 129. Communications link establishment device 132 may be a conventional network interface device of a type well-known to those skilled in the art, such as TI, PRI, BRI, LAN, etc. MMS data transceiver 130 is frequently integrated with the network interface hardware, and MMS processor 126 may be a conventional microprocessor device. Communications link 122 could be a plurality of standard wire-pair telephonic links, and MMS memory 128 could be a combination of conventional ROM and RAM. Multimedia signal routing device 129 provides for the selective routing of video, audio, and/or data to and from a plurality of endpoint devices via network 108, thereby providing

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a multimedia conference, and multimedia signals are exchanged among a plurality of endpoint devices (See also Fig. 7; Col. 4, lines 52 plus).

However, Biggs does not disclose expressly the reflector for passing an audio/video signal, and the receiving login program data for a VC session. In the same field of endeavor, Goldszmidt et al. (US#6,195,680) teaches one known method in the art for increasing scalability for real-time multimedia streaming is through the use of so-called "reflector" technology. The reflector technology is used in applications--such as IBM's BAMBA.TM., Vosaic's MEDIASERVER.TM. and White Pine Software's CU-SeeMe.TM.--to provide real-time audio and video streaming over the Internet. Reflectors are servers that manage the distribution of audio and video streams to their receivers. They can be cascaded and scaled to handle increased demand for a broadcast. Multimedia streams are replicated at each reflector and delivered to multiple receivers. By simply adding more reflectors, a broadcast is capable of supporting large numbers of clients. Goldszmidt further disclose in Figs. 6-8 block diagrams illustrated a distributed network utilizing a plurality of reflectors which receive the audio and video data, and provide scalability by replicating the stream and delivering it to the various client playback stations in the network (Col. 14, lines 64 plus).

Regarding claims 6-7 and 10, they are method claims corresponding to the apparatus claims 1 and 2 above. Therefore, claims 6-7, 10 are analyzed and rejected as previously discussed with respect to claims 1-2.

One skilled in the art would have recognized the need for effectively and efficiently administering the video conference and controlling the A/V signal flow, and would have applied

Goldszmidt's teaching of the reflector server in manages the distribution of audio and video streams to the various clients in the network into Biggs' novel use of the multipoint video conference and broadcasting system utilizing multipoint control unit and improved end point devices. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Goldszmidt's client-based dynamic switching of streaming server for fault tolerance and load balancing into Biggs' seamless multimedia conferencing system using an enhanced multipoint control unit and enhanced endpoint devices with the motivation being to provide a method and system for conducting a video conference or broadcast over a distributed network in which audio and video signals generated by one or more participants in the video communication session.

6. Claims 3-5 and 8, 9, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biggs et al. (US#5,625,407) in view of Goldszmidt et al. (US#6,195,680) as applied to the claims above, and further in view of Kenner et al. (US#6,421,726).

With respect to claims 3-5, these claims differ from the claims above in that the claims require the client program includes an audio/visual viewer with a codec configured to display the audio/visual signal received from the reflector. In the same field of endeavor, Kenner et al. (US#6,421,726) discloses a system and method whereby a user can acquire network performance information for a dynamic and distributed multipurpose network, and use this information to identify and select optimum delivery sites or servers from which to receive computer data, specifically multimedia content, as well as to select the particular type of multimedia content viewable by the user. Such delivery sites, servers, and content type are selected so as to increase

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network capacity, distribute server load, reduce transmission delays between the server and the user, and reduce obstacles to viewing the multimedia content. Fig. 1 illustrated a network topology of a system, in which the user terminal includes the uses of a configuration utility 34 and a client program 36, and the browser 38 with installed CODECs 110-114. The video player "CODEC" program, or COmpressor/DECompressor, often located at a user's multimedia terminal for decompression of a video. Generally speaking, a single CODEC program can only recognize and decompress a single compression format (Col. 8, lines 18 plus and Col. 18, lines 14 plus). Furthermore, the most relevant of the ITU standards is H.323, which defines audio/visual services over LANs for which quality of service cannot be guaranteed (see e.g., "Draft Recommendation H.323: Visual Telephone Systems and Equipment for Local Area Networks Which Provide A Non-Guaranteed Quality of Service," (May 28, 1996), which is hereby incorporated herein by reference in its entirety). This standard specifies a variety of audio and video coders and decoders (CODECs) as well as signaling protocols to negotiate capabilities and setup and manage connections (See Goldszmidt et al. Col. 1, lines 58 plus).

Regarding claims 8-9 and 11-12, they are method claims corresponding to the apparatus claims 3-5 above. Therefore, claims 8-9, 11-12 are analyzed and rejected as previously discussed with respect to claims 3-5.

One skilled in the art would have recognized the need for effectively and efficiently administering the video conference and controlling the A/V signal flow, and would have applied Kenner's novel use of CODEC programs at the user terminal for displaying audio/visual viewer, and Goldszmidt's teaching of the reflector server in manages the distribution of audio and video streams to the various clients in the network into Biggs' multipoint video conference and

broadcasting system utilizing multipoint control unit and improved end point devices. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Kenner's system and method for selection and retrieval of diverse types of video data on a computer network, and Goldszmidt's client-based dynamic switching of streaming server for fault tolerance and load balancing into Biggs's seamless multimedia conferencing system using an enhanced multipoint control unit and enhanced endpoint devices with the motivation being to provide a method and system for conducting a video conference or broadcast over a distributed network in which audio and video signals generated by one or more participants in the video communication session.

7. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldszmidt et al. (US#6,195,680) in view of Kenner et al. (US#6,421,726).

With respect to claims 13-18, both Goldszmidt et al. (US#6,195,680) and Kenner et al. (US#6,421,726) disclose a novel method and system for multipoint video conference controlling, according to the essential features of the claims. Goldszmidt et al. (US#6,195,680) teaches one known method in the art for increasing scalability for real-time multimedia streaming is through the use of so-called "reflector" technology. The reflector technology is used in applications--such as IBM's BAMBA.TM., Vosaic's MEDIASERVER.TM. and White Pine Software's CU-SeeMe.TM.--to provide real-time audio and video streaming over the Internet. Reflectors are servers that manage the distribution of audio and video streams to their receivers. They can be cascaded and scaled to handle increased demand for a broadcast. Multimedia streams are replicated at each reflector and delivered to multiple receivers. By simply adding more reflectors,

a broadcast is capable of supporting large numbers of clients. Goldszmidt further disclose in Figs. 6-8 block diagrams illustrated a distributed network utilizing a plurality of reflectors which receive the audio and video data, and provide scalability by replicating the stream and delivering it to the various client playback stations in the network (Col. 14, lines 64 plus). Goldszmidt teach a system having features of the present invention includes: a control server; two or more streaming servers, and a plurality of client agents. The control server is preferably a scalable server that is capable of handling a requests from a large number of incoming client agents and redirecting them to the streaming servers that are providing the multimedia data. The control server assigns different identifiers to the streaming servers for delivering the multimedia data, and uses these identifiers to group these streaming servers into two or more different sets. The streaming servers are used to deliver the real-time multimedia streams to the client agents. To receive a multimedia stream, client agents are given an identifier to connect to a server in one of the sets. Each client agent receives the multimedia stream from a streaming server, performs the appropriate processing (e.g., decompression, scaling) on the stream and renders the multimedia output. Each client agent can be provided with a primary server identifier as well as a secondary server set identifier. The primary entry characterizes the primary streaming server in the set of servers the client agent is connecting to. The secondary entry characterizes the set containing an alternate server for the client agent. When a client detects a failure or overload, the client sends a switch request to the control server which then selects a server in the secondary set and redirects the client agents of the primary server to the selected alternate server. Thus, the client agents can continue to receive the multimedia streams with minimal or no interruption (Col. 3, lines 28 plus).

However, Goldszmidt does not disclose expressly the step of generating a digital ticket for each of the participants includes a reference time, data and controller . In the same field of endeavor, Kenner et al. (US#6,421,726) discloses the configuration utility 34 and the client program 36 on the user terminal 12 as shown in Fig. 1. The configuration utility 34, when first run on the user terminal 12, retrieves a delivery site file (step 40) from the MSP 32 (Fig. 1). If the user already has a delivery site file (e.g., it was received with the configuration utility 34), and that delivery site file is sufficiently new, the delivery site file can be retrieved from the local hard disk of the user terminal 12. This delivery site file contains a list of all available delivery sites (such as delivery sites 26, 28, and 30) and a list of network tests to be run at the user terminal 12. In the context of the invention, there can be as few as two delivery sites, or if the number of users justifies it, as many as several thousand. The number of sites in principal is unlimited, with each available delivery site represented in the delivery site file. The delivery site file is generated by the database from within the MSP's computer system. The database application uses information about the user to dynamically determine the optimum tests to run. Consequently, the delivery site file need not contain entries for every delivery site in existence; the list can be tailored to include only those sites which appear appropriate or feasible (Col. 9, lines 40 plus). Kenner further teaches in Fig. 1 illustrated a network topology of a system, in which the user terminal includes the uses of a configuration utility 34 and a client program 36, and the browser 38 with installed CODECs 110-114. The video player "CODEC" program, or Compressor/DECompressor, often located at a user's multimedia terminal for decompression of a video. Generally speaking, a single CODEC program can only recognize and decompress a single compression format (Col. 8, lines 18 plus and Col. 18, lines 14 plus).

One skilled in the art would have recognized the need for effectively and efficiently administering the video conference and controlling the A/V signal flow, and would have applied Kenner's novel use of CODEC programs at the user terminal for displaying audio/visual viewer into Goldszmidt's teaching of the reflector server in manages the distribution of audio and video streams to the various clients in the network. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Kenner's system and method for selection and retrieval of diverse types of video data on a computer network into Goldszmidt's client-based dynamic switching of streaming servers for fault tolerance and load balancing with the motivation being to provide a method and system for conducting a video conference or broadcast over a distributed network in which audio and video signals generated by one or more participants in the video communication session.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Weinman, JR. (US#2001/0047412) is cited to show the method and apparatus for maximizing distance of data mirrors

The Li (US#6,799,214) is cited to show the system and method for efficient content delivery using redirection pages received from the content provider original site and the mirror sites.

The Carney et al. (US#2002/0120518) is cited to show the system and method for delivering out of home programming.

The Emens et al. (US#6,606,643) is cited to show the method of automatically selecting a mirror server for web based client-host interaction.

The Kenner et al. (US#6,003,030) is cited to show the system and method for optimized storage and retrieval of data on a distributed computer network.

The Kenner et al. (US#6,112,239) is cited to show the system and method for server side optimization of data delivery on a distributed computer network.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION THIS ACTION IS MADE FINAL**. See MPEP ' 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

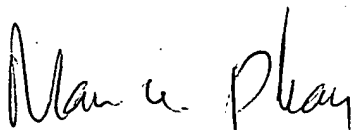
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

June 07, 2005



MAN U. PHAN
PRIMARY EXAMINER